

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference BIF116044/DM	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/FR2004/001858	International filing date (day/month/year) 15.07.2004	Priority date (day/month/year) 21.07.2003
International Patent Classification (IPC) or national classification and IPC B81B3/00, H01L21/20, H01L21/762		
Applicant COMMISSARIAT A L'ENERGIE ATOMIQUE		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>6</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>4</u> sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>	
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>	

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

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International application No.

PCT/FR2004/001858

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-14 _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. _____ as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* 1-33 _____ received by this Authority on 03.05.2005 with letter
- nos.* _____ received by this Authority on of 27.04.2005
- ☒ the drawings:
- sheets 1-2 _____ as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (specify): _____
- ☐ any table(s) related to sequence listing (specify): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (specify): _____
- ☐ any table(s) related to sequence listing (specify): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	—	YES
	Claims	1-33	NO
Inventive step (IS)	Claims	—	YES
	Claims	1-33	NO
Industrial applicability (IA)	Claims	1-33	YES
	Claims	—	NO

2. Citations and explanations (Rule 70.7)

1. Reference is made to the following document:

D3: US 6 156 215 (Canon Kabushiki Kaisha)
5 December 2000 (2000-12-05).

2. The application does not fulfil the requirements set forth in PCT Article 6 because claims 1 and 20 are not clear.

2.1 The term "structured" in claims 1 and 20 casts doubt on the meaning of the technical features to which it refers. A person skilled in the art would construe the expression "to structure a plate" as referring to the etching thereof. The description in the present application, however, gives an entirely different definition, namely that a surface is structured when it is "essentially incapable of being adhered to another predetermined substrate" (cf. page 6, lines 11-13).

2.2 Claims 1 and 20 refer to a "sacrificial layer". A person skilled in the art would construe the

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
	<p>expression "sacrificial layer" as referring to a layer that is at least partially removed during a method. However, no step of removing at least part of said "sacrificial layer" is described in the method as per claim 1. It follows that said layer appears to be an intermediate layer, not a sacrificial layer.</p> <p>3. The present application does not fulfil the requirements set forth in PCT Article 33(1) because the subject matter of claims 1 and 19 does not comply with the requirement of novelty defined in PCT Article 33(2).</p> <p>3.1 Document D3 describes (cf. figures 1A-1F and column 3, line 18 to column 4, line 57; the references between parentheses apply to said document):</p> <ul style="list-style-type: none">• a method for producing a stacked structure, characterised in that it includes the following steps:<ul style="list-style-type: none">(a) providing a first plate (1) and a second plate (8) and structuring at least one of said first (1) and second (8) plates in such a way that it has, at least in part, a structured surface (cf. figure 1A);(b) producing a sacrificial layer (peeling layer 4 of silicon dioxide) on at least part of the surface (4) of said first plate (1) and/or the surface of said

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second plate (8); and

(c) mutually adhering said two plates (cf. figure 1E).

- 3.2 It follows that document D3 also describes a stacked structure characterised in that it is produced using a method as per claim 1.

As a result, the subject matter of claim 19 is not novel either.

- 3.3 The same argument applies *mutatis mutandis* to the subject matter of the corresponding independent claim 20, which is likewise not novel.

4. In light of document D3, dependent claims 2, 5, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 21, 24, 27, 29, 30, 31, 32 and 33 do not contain any features which, in combination with the features of any one of the claims to which they refer, might define subject matter that fulfils the PCT requirements of novelty and/or inventive step (see the description relating to figures 1A-1F).

5. **It should be noted that document D1 still appears to deprive independent claims 1, 19 and 20 of novelty (cf. the first written opinion of the International Searching Authority).**

Claims 4 and 23 disclose that a low roughness index of 0.2 nm RMS is considered to be sufficient to "structure" the surface of a plate. Said

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roughness index is so low that both substrates 10 and 30 (cf. D1, figure 5) certainly exceed this limit.

As a result and in light of document D1, dependent claims 2-18 and 21-33 do not contain any features which, in combination with the features of any one of the claims to which they refer, might define subject matter that fulfils the PCT requirements of novelty and/or inventive step (cf. the first written opinion of the International Searching Authority).